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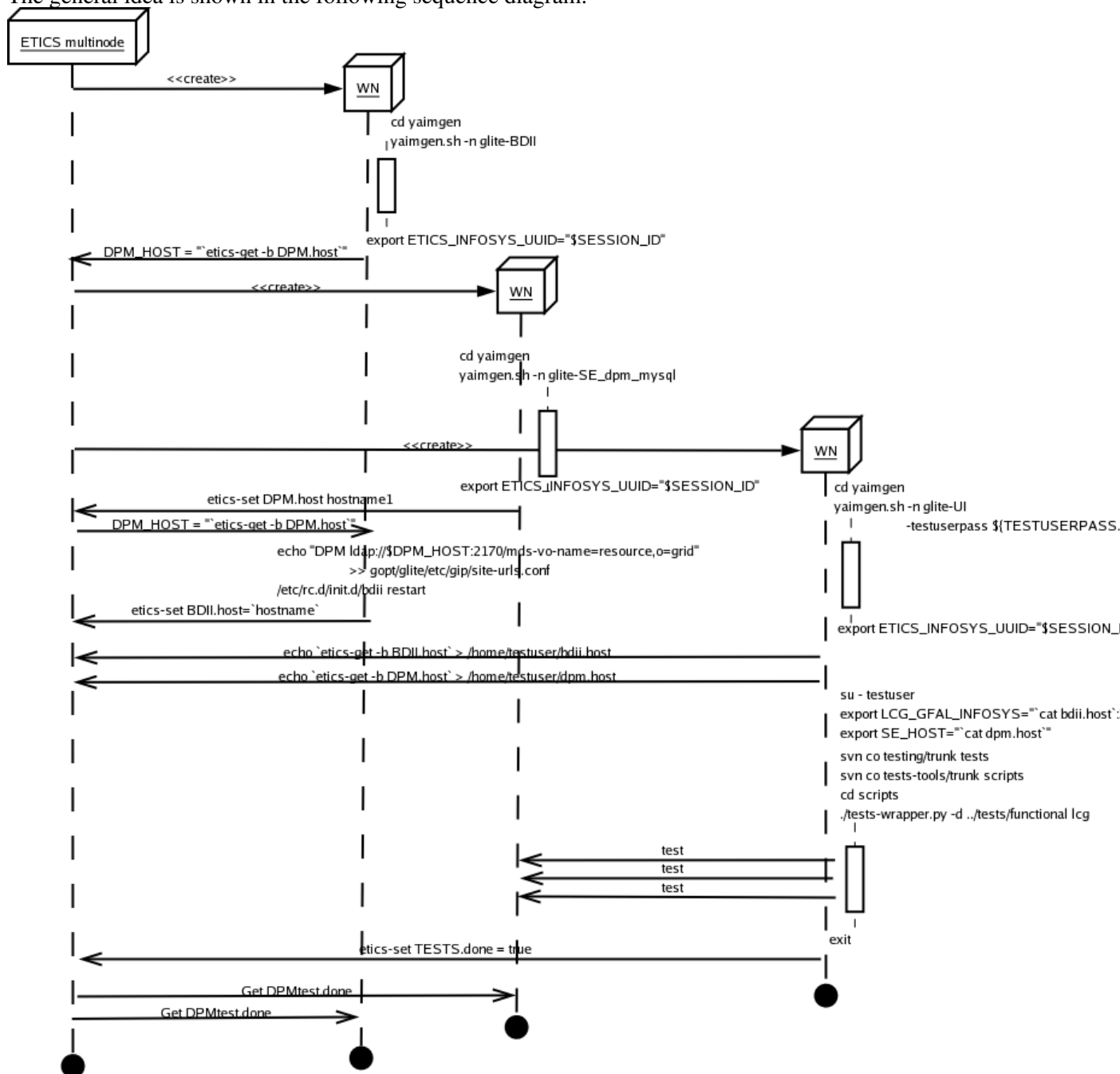
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# ETICS multinode testing exercises

This page collects some preliminary tests to use the ETICS multinode testing to certify Data Management services.

## Sequence diagram for DPM test automation

The general idea is shown in the following sequence diagram:



## Yaimgen and test scripts review

Multinode testing in ETICS will be used here as a driver and communication infrastructure built on top of existing script for test automation (<https://svnweb.cern.ch/trac/yaimgen/>)[Yaimgen].

Automatic deployment of services: - glite-SE\_dpm\_mysql:

```
./vnode-ygen.sh -i sl5-64-dh -n glite-SE_dpm_mysql  
[...]
```

- glite-UI

```
./vnode-ygen.sh -i sl5-64-dh -n glite-UI
```

The vnode-ygen.sh script uses the Vnode CLI to create a virtual machine, and then Yaimgen to deploy the service.

The UI deployment also creates and prepare a testuser account generating a voms proxy, so that tests can be immediately run.

Launching DPM client tests using tests-wrapper.py:

```
./tests-wrapper.py -d ../tests/functional lcg
```

This command will launch the lcgutil functional test using the CTB resources specified in lcgutil-config.

*ISSUE #1:* How to override the default hostnames in order to use the one just deployed?

*SOLUTION #1:* The lcgutil-config has been modified in order not to override existing environment variables.

Therefore, before calling tests-wrapper.py one has to set SE\_HOST to point the tests to the DPM server just deployed:

```
export SE_HOST="vtb-generic-91.cern.ch"
```

*ISSUE #2\_* The just deployed DPM will not be published in the BDII, causing lcg-\* command to fail:

```
[BDII][][] lxbra2305.cern.ch: No entries for host: vtb-generic-91.cern.ch
```

*SOLUTION #1\_A:* Do not use the BDII, run all the lcg-\* command with the option '--nobdii' and specifying the endpoint type, e.g:

```
[testuser@vtb-generic-61 scripts]$ lcg-cr -v --nobdii --defaultsetype srmv2 -d vtb-generic-91.cern.ch  
Using grid catalog type: lfc  
Using grid catalog : lxbra2506v3.cern.ch  
Checksum type: None  
[GFAL][gfal_init][EINVAL] Invalid request: When BDII checks are disabled, you must provide SURLS  
lcg_cr: Invalid argument
```

Moreover we need to provide the SURL instead of the hostname, like this:

```
[testuser@vtb-generic-61 scripts]$ lcg-cr --nobdii --defaultsetype srmv2 -d srm://vtb-generic-91.cern.ch  
guid:b15c58f8-83a8-432f-bc21-0c7315c9e94b
```

In order to make this solution work we need to modify modify the script lcg-common in order to use the --nobdii option, which is not working because it relies on a BDII query

```
[testuser@vtb-generic-61 lcg]$ ./lcg-cr --nobdii --usefullsurl vtb-generic-91.cern.ch
```

```
=== lcg-cr, -del test ===
```

```
==> --nobdii option will be passed to commands sensitive to it
```

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```
====> Full SURLs will be used whenever possible
====> Full SURLs will be used whenever possible
====> SE host      : vtb-generic-91.cern.ch
====> second storage element (for lcg-rep):
====> [for information]: LCG_GFAL_INFOSYS=
====> [for information]: LCG_GFAL_VO=
====> [for information]: LFC_HOST=lxbra2506v3.cern.ch
====> Trying to determine endpoint for vtb-generic-91.cern.ch
ldap_bind: Can't contact LDAP server (-1)
ldap_bind: Can't contact LDAP server (-1)
ldap_bind: Can't contact LDAP server (-1)
====> SE endpoint :
====> SRM endpoint:
====> Could not determine srm endpoint for vtb-generic-91.cern.ch
```

This solution also has the disadvantage of not testing the BDII interaction.

*SOLUTION #2\_B:* Add a testing BDII that include CTB resources, and where we can publish unstable resources.

Possible interactions among unstable services? Should not be a problem.

The testing BDII is already available, but publishing information automatically (on demand) looks tricky.

*SOLUTION #2\_C:* Create an additional node with an ad-hoc BDII

This way we have control over the machine and would be easier to publish information. However for every test there is going to be an additional node needed.

I will investigate this solution for now.

In order to update the BDII with the newly created DPM host we need to add to `/opt/glite/etc/gip/site-urls.conf` the string:

```
DPM ldap://<dpm hostname>:2170/mds-vo-name=resource,o=grid
```

and restart the bdiid daemon with:

```
/etc/rc.d/init.d/bdiid restart
```

The new sequence diagram including the BDII node and additional communication messages is:

## Tests with vNode machines

### BDII node commands

```
#!/bin/bash

#Install BDII site
cd yaimgen
./yaimgen.sh -n glite-BDII_site

# ETICS client installation (TO SKIP WHEN NOT NECESSARY)
cd
wget "http://eticssoft.web.cern.ch/eticssoft/repository/etics-client-setup.py"
python etics-client-setup.py -r 1.4.15-1 --volatile etics_2_5_0
export ETICS_HOME=/root/etics
export PATH=$ETICS_HOME/bin:$PATH

ETICS_MULTINODE_ID="giannitest6"
export ETICS_INFOSYS_UUID="$ETICS_MULTINODE_ID"
DPM_HOST=`etics-get -b DPM.host`

#Add DPM host to BDII
echo "DPM ldap://$DPM_HOST:2170/mds-vo-name=resource,o=grid" >> /opt/glite/etc/gip/site-urls.com
/etc/rc.d/init.d/bdii restart
etics-set BDII.host `hostname`

#Wait for the end
etics-get -b TESTS.done
```

## UI node commands

```
#!/bin/bash

#Install glite-UI
cd yaimgen
./yaimgen.sh -n glite-UI -testuserpass ****

# ETICS client installation
cd
wget "http://eticssoft.web.cern.ch/eticssoft/repository/etics-client-setup.py"
python etics-client-setup.py -r 1.4.15-1 --volatile etics_2_5_0
export ETICS_HOME=/root/etics
export PATH=$ETICS_HOME/bin:$PATH
export ETICS_INFOSYS_UUID="giannitest6"
echo `etics-get -b BDII.host` >> /home/testuser/bdii.host
echo `etics-get -b DPM.host` >> /home/testuser/dpm.host

#prepare test driver script
cat << EOF > /tmp/runtests.sh
#!/bin/bash
svn co http://svnweb.cern.ch/guest/lcgutil/testing/trunk tests
svn co http://svnweb.cern.ch/guest/lcgutil/tests-tools/trunk scripts

export LCG_GFAL_INFOSYS="`cat bdii.host`:2170"
export SE_HOST="`cat dpm.host`"
cd scripts
./tests-wrapper.py -o output.xml -d ../tests/functional lcg

#MV report elsewhere
#exit

EOF
chmod a+x /tmp/runtests.sh

#Launch tests
su - testuser -c /tmp/runtests.sh

etics-set TESTS.done true
```

## DPM node commands

```
#!/bin/bash

#Install glite-SE_dpm_mysql
cd yaimgen
./yaimgen.sh -n glite-SE_dpm_mysql

# ETICS client installation
cd
wget "http://eticssoft.web.cern.ch/eticssoft/repository/etics-client-setup.py"
python etics-client-setup.py -r 1.4.15-1 --volatile etics_2_5_0
export ETICS_HOME=/root/etics
export PATH=$ETICS_HOME/bin:$PATH
export ETICS_INFOSYS_UUID="giannitest6"

etics-set DPM.host `hostname`

etics-get -b TESTS.done
```

## ETICS integration

TBD

-- GianniPucciani - 08-Dec-2010

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This topic: Main > MultinodeTesting

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